

PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 1

of 18

**Complete if Known**

Application Number	10/004,770
Filing Date	12/04/2001
First Named Inventor	Indra LAKSONO
Art Unit	2611
Examiner Name	GRANT, Christopher C.
Attorney Docket Number	1459.0100320 (1459-VIXS032)

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	AA	US- 5,027,203	06-25-1991	Samad, et al.	
	AB	US- 5,115,812	05-26-1992	Sano, et al.	
	AC	US- 5,475,434	12-12-1995	Kim	
	AD	US- 5,602,589	02-11-1997	Vishwanath, et al.	
	AE	US- 5,635,985	06-03-1997	Boyce, et al.	
	AF	US- 5,644,361	07-01-1997	Ran, et al.	
	AG	US- 5,652,749	07-29-1997	Davenport, et al.	
	AH	US- 5,732,391	03-24-1998	Fiocca	
	AI	US- 5,737,020	04-07-1998	Hall, et al.	
	AJ	US- 5,740,028	04-14-1998	Sugiyama, et al.	
	AK	US- 5,940,130	08-17-1999	Nilsson, et al.	
	AL	US- 5,996,029	11-30-1999	Sugiyama, et al.	
	AM	US- 6,005,623	12-21-1999	Takahashi, et al.	
	AN	US- 6,005,624	12-21-1999	Vainsencher	
	AO	US- 6,014,694	01-11-2000	Aharoni, et al.	
	AP	US- 6,040,863	03-21-2000	Kato	
	AQ	US- 6,081,295	06-27-2000	Adolph, et al.	
	AR	US- 6,141,693	10-31-2000	Perlman, et al.	
	AS	US- 6,144,402	11-07-2000	Norsworthy, et al.	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>4</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
↓ ↓ ↓ ↓ ↓ ↓	AT	EP 0661826 A2	07-05-1995	IBM		
	AU	EP 0739138 A2	10-23-1996	Kalmanek, et al.		
	AV	EP 0805599 A2	11-05-1997	Oki Electric Industry		
	AW	EP 0855805 A2	07-29-1998	Sharp KK		
	AX	EP 0896300 B1	02-10-1999	Matsushita Electric		
	AY	EP 0901285 A1	02-10-1999	Yamauchi		

Examiner  
Signature

/Son Huynh/ (08/15/2007)

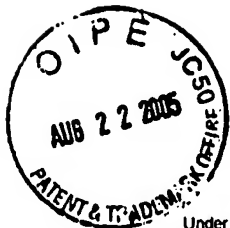
Date  
Considered

08/15/2007

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO		<b>Complete if Known</b>	
		Application Number	10/004,770
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (Use as many sheets as necessary)		Filing Date	12/04/2001
		First Named Inventor	Indra LAKSONO
		Art Unit	2611
		Examiner Name	GRANT, Christopher C.
		Attorney Docket Number	1459.0100320 (1459-VIXS032)
Sheet	2	of	8

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
/AH/	AZ	US- 6,167,084	12-26-2000	Wang, et al.	
	BA	US- 6,182,203	01-30-2001	Simar, Jr., et al.	
	BB	US- 6,215,821	04-10-2001	Chen	
	BC	US- 6,219,358	04-17-2001	Pinder, et al.	
	BD	US- 6,222,886 B1	04-24-2001	Yogeshwar	
	BE	US- 6,236,683	05-22-2001	Mougeat, et al.	
	BF	US- 6,263,022	07-17-2001	Chen, et al.	
	BG	US- 6,300,973	10-09-2001	Feder, et al.	
	BH	US- 6,307,939 B1	10-23-2001	Vigarie	
	BI	US- 6,314,138	11-06-2001	Lemagnet	
	BJ	US- 6,323,904	11-27-2001	Knee	
	BK	US- 6,366,614	04-02-2002	Plan, et al.	
	BL	US- 6,385,248	05-07-2002	Pearlstein, et al.	
	BM	US- 6,480,541	11-12-2002	Girod, et al.	
	BN	US- 6,526,099	02-25-2003	Chistopoulos, et al.	
	BO	US- 6,259,741	07-10-2001	Chen, et al.	
	BP	US- 6,584,509	06-24-2003	Putzolu	
	BQ	US- 6,724,726	04-20-2004	Coudreuse	
/AH/	BR	US- 6,748,020	06-08-2004	Eifrig, et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>4</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
/AH/	BS	EP 0955607 A2	11-10-1999	Sarnoff Corp.		
↓	BT	EP 1032214 A2	08-30-2000	Matsushita Electric		
	BU	WO 01/95633 A2	12-13-2001	Gen Instrument Group		
	BV	WO 02/080518 A2	10-10-2002	Laksono		
	BW	JP 07-210670 A	08-11-1995	Fuji Xerox Ltd.		
/AH/	BX	EP 1087625 A2	03-28-2001	Sostawa et al.		

Examiner Signature	/Son Huynh/ (08/15/2007)	Date Considered	08/15/2007
-----------------------	--------------------------	--------------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



PTO/SB/08A (08-03)

Approved for use through 07/31/2008. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>Substitute for form 1449/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>		<b>Complete If Known</b>	
		Application Number	10/004,770
		Filing Date	12/04/2001
		First Named Inventor	Indra LAKSONO
		Art Unit	2611
		Examiner Name	GRANT, Christopher C.
Sheet <b>3</b>	of <b>8</b>	Attorney Docket Number	1459.0100320 (1459-VIXS032)

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
↓ /AH/	BY	US- 6,438,168	08-20-2002	Arye	
	BZ	US- 2001/0026591 A1	10-04-2001	Keren, et al.	
	CA	US- 2002/110193 A1	08-15-2002	Kyoon, et al.	
	CB	US- 2002/138259 A1	09-26-2002	Kawahara	
	CC	US- 2002/196851 A1	12-26-2002	Arnaud	
	CD	US- 2002/106022 A1	08-08-2002	Takahashi, et al.	
	CE	US- 2003/0152148 A1	08-14-2003	Laksono	
	CF	US- 4,866,395	09-12-1989	Hosteller	
	CG	US- 6,549,561	04-15-2003	Crawford	
	CH	US- 5,093,847	03-03-1992	Cheng	
	CI	US- 5,253,056	10-12-1993	Puri	
	CJ	US- 6,714,202	03-03-2004	Dorrell	
	CK	US- 5,844,545	12-01-1992	Suzuki, et al.	
	CL	US- 5,563,950	10-08-1996	Easter, et al.	
	CM	US- 5,850,443	12-15-1998	Van Oorschot, et al.	
	CN	US- 2002/0145931 A1	10-10-2002	Pitts	
	CO	US- 2003/0093661 A1	05-15-2003	Loh, et al.	
		US-			
		US-			

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No.	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				

Examiner Signature	/Son Huynh/ (08/15/2007)	Date Considered	08/15/2007
-----------------------	--------------------------	--------------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



PTO/SB/08B (08-03)  
Approved for use through 07/31/2008, OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known	
Application Number	10/004,770
Filing Date	12/04/2001
First Named Inventor	Indra LAKSONO
Art Unit	2611
Examiner Name	GRANT, Christopher C.
Attorney Docket Number	1459.0100320 (1459-VIXS032)

Sheet 4 of 8

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
/AH/	CP	YU, Donghoom, et al., "Fast Motion Estimation for Shape Coding in MPEG-4," IEEE Transactions on Circuits and Systems for Video Technology, Vol. 13, No. 4, 2003 IEEE, April 2003, pp. 358-363	
	CQ	PYUN, Jae-Young, "QoS Provisioning for Video Streaming Over IEEE 802.11 Wireless LAN," (abridged) IEEE Conferences in Consumer Electronics, June 16, 2003, EE Times, Seoul, Korea, <http://eetimes.com/printableArticle?doc_id=OEG2003061S0070> retrieved July 8, 2003	
	CR	YOUN, Jeongnam et al., "Video Transcoding For Multiple Clients," Proceedings of the SPIE, Bellingham, VA, vol. 4067, XP008012075, pp. 76-85, University of Washington, Seattle, WA	
	CS	LENGWEHASATIT, Krisda et al., "Computationally Scalable Partial Distance Based Fast Search Motion Estimation," Packet Video Corp., San Diego, California	
	CT	TAKAHASHI, Kuniaki, et al., "Motion Vector Synthesis Algorithm for MPEG2-to-MPEG4 Transcoder," Proceedings of the SPIE, Bellingham, VA; vol. 4310, Sony Corporation, XP008000078, pp. 387-882, 2001 SPIE	
	CU	SOARES, Luis Ducla, et al., "Influence of Encoder Parameters on the Decoded Video Quality for MPEG-4 Over W-CDMA Mobile Networks," NTT DoCoMo, Inc.	
	CV	AGGARWAL, Manoj et al., "Efficient Huffman Decoding," 2000 IEEE, 0-7803-6297-7, pp. 936-939, University of Illinois at Urbana-Champaign, Urbana, IL	
	CW	SHERWOOD, P. Greg et al., "Efficient Image and Channel Coding for Wireless Packet Networks," University of California, La Jolla, California	
	CX	ASSUNCAO, Pedro et al., "Rate Reduction Techniques for MPEG-2 Video Bit Streams," SPIE, Vol. 2952, April 1996, pp. 450-459, University of Essex, Colchester, England	
/AH/	CY	YIN, Peng et al., "Video Transcoding by Reducing Spatial Resolution," Princeton University, 2000, Princeton, New Jersey	

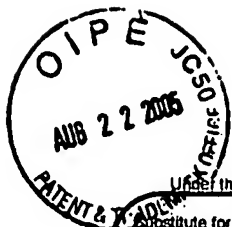
Examiner Signature	/Son Huynh/ (08/15/2007)	Date Considered	08/15/2007
--------------------	--------------------------	-----------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



PTO/SB/088 (08-03)  
Approved for use through 07/31/2008, OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		<b>Complete If Known</b>	
		Application Number	10/004,770
		Filing Date	12/04/2001
		First Named Inventor	Indra LAKSONO
		Art Unit	2611
		Examiner Name	GRANT, Christopher C.
Sheet 5	of 8	Attorney Docket Number	1459.0100320 (1459-VIXS032)

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
/AH/ ↓	CZ	SHANABLEH, Tamer et al., "Heterogeneous Video Transcoding to Lower Spatio-Temporal Resolutions and Difference Encoding Formats," IEEE Transactions on Multimedia, Vol. 2, No. 2, June 2000, pp. 101-110, Engineering and Physical Sciences Research Council, Colchester, U.K.	
	DA	WIEGAND, Thomas et al., "Long-Term Memory Motion-Compensated Prediction for Robust Video Transmission," in Proc. ICIP 2000, University of Erlangen-Buremberg, Erlangen, Germany	
	DB	FAN, Zhigang et al. "Maximum Likelihood Estimation of JPEG Quantization Table in the Identification of Bitmap Compression History," Xerox Corporation, Webster, New York	
	DC	THOMAS, Shine M. et al., "An Efficient Implentation of MPEG-2 (BC1) Layer 1 & Layer 2 Stereo Encoder on Pentium-III Platform", pp. 1-10, Sasken Communication Technologies Limited, Bangalore, India.	
	DD	RAMANUJAN, Ranga S. et al., "Adaptive Streaming of MPEG Video Over IP Networks," 22nd IEEE Conference on Local Computer Networks (LCN '97), November 02-05, 1997, 1997 IEEE, pp. 398-409, Architecture Technology Corporation, Minneapolis, MN	
	DE	REJAIE, Reza et al., "Architectural Considerations for Playback of Quality Adaptive Video Over the Internet," XP002177090, 2000 IEEE pp. 204-209, AT&T Labs, Menlo Park, California	
	DF	BOURAS, C. et al., "On-Demand Hypermedia/Multimedia Service Over Broadband Networks," XP-002180545, 1996 IEEE Proceedings of HPDC-5 '96, pp. 224-230, University of Patras, Patras, Greece	
	DG	CHALIDABHONGSE, Junavit et al., "Fast Motion Vector Estimation Using Multiresolution-Spatio-Temporal Correlations," IEEE Transactions On Circuits and Systems For Video Technology, vol. 7, no. 3 June 1997, pp. 477-488	
	DH	OH, Hwang-Seok et al., "Block-Matching Algorithm Based On An Adaptive Reduction of the Search Area For Motion Estimation," Real-Time Imaging, Academic Press Ltd., Vol. 56, No. 5, Oct 2000, pp. 407-414, XP004419498 ISSN: 1077-2014, Taejon, Korea	
	DI	LEE, Liang-Wei et al., "Dynamic Search-Window Adjustment and Interlaced Search for Block-Matching Algorithm," IEEE Transactions On Circuits and Systems for Video Technology," IEEE, Vol. 3, No. 1, 3 Feb 1993, pp. 85-87, XP000334581 ISSN: 1051-8215, New York	

Examiner Signature	/Son Huynh/ (08/15/2007)	Date Considered	08/15/2007
--------------------	--------------------------	-----------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.  
1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.  
This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



PTO/SB/08B (08-03)  
Approved for use through 07/31/2008, OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE  
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<b>Complete if Known</b>	
		Application Number	10/004,770
		Filing Date	12/04/2001
		First Named Inventor	Indra LAKSONO
		Art Unit	2611
		Examiner Name	GRANT, Christopher C.
Sheet 6	of 8	Attorney Docket Number	1459.0100320 (1459-VIXS032)

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
/AH/	DJ	FUKUNAGA, Shigeru et al., "MPEG-4 Video Verification Model Version 16.0" International Organization for Standardization: Coding of Moving Pictures and Audio, Vol. N3312, March 2000, pp. 1-380, XP000861688,	
	DK	KRONER, Sabine et al., "Edge Preserving Noise Smoothing With An Optimized Cubic Filter," DEEI, University of Trieste, Trieste, Italy	
	DL	KIM, Jaemin et al., "Spatiotemporal Adaptive 3-D Kalman Filter for Video," pp. 1-12. Samsung Semiconductor, Inc. San Jose, California	
	DM	LIU, Julia J., "ECE497KJ Course Project: Applications of Wiener Filtering In Image and Video De-Noising," pp. 1-15, May 21, 1997	
	DN	JOSTSCHULTE, K. et al., "A Subband Based Spatio-Temporal Noise Reduction Technique for Interlaced Video Signals," University Dortmund, Dortmund, Germany	
	DO	KOSSENTINI, Faouzi et al. "Predictive RD Optimized Motion Estimation for Very Low Bit-Rate Video Coding," 1997 IEEE, XP-000726013, pp. 1752-1963, September 1, 1996, 1997 International Conference on Image Processing, Vancouver, Canada	
	DP	TOURAPIS, Alexis et al. "New Results on Zonal Based Motion Estimation Algorithms - Advanced Predictive Diamond Zonal Search," 2001 IEEE, pp. V 183-V 186, The Hong Kong University of Science and Technology, Clear Water Bay, Kowloon, Hong Kong	
	DQ	BRANDENBURG, Karlheinz, "MP3 and AAC Explained," Proceedings of AES 17th International Conference, XP008004053, pp. 99-110, Erlangen, Germany	
	DR	PAINTER, Ted et al., "Perceptual Coding of Digital Audio," Proceedings of the IEEE, Vol. 88, No. 4, April 2000, pp. 451-513, XP001143231, ISSN: 0018-9219, Arizona State University, Tempe, AZ	
/AH/	DS	HASSANZADEGAN, Hooman et al., "A New Method for Clock Recovery In MPEG Decoders," pp. 1-8, Basamad Negar Company, Tehran, Iran	

Examiner Signature	/Son Huynh/ (08/15/2007)	Date Considered	08/15/2007
--------------------	--------------------------	-----------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.  
<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.  
 This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



PTO/SB/08B (08-03)  
Approved for use through 07/31/2006. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

### Complete if Known

Application Number	10/004,770
Filing Date	12/04/2001
First Named Inventor	Indra LAKSONO
Art Unit	2611
Examiner Name	GRANT, Christopher C.
Attorney Docket Number	1459.0100320 (1459-VIXS032)

Sheet 7 of 8

### NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
/AH/	DT	KAN, Kou-Sou et al., "Low-Complexity and Low-Delay Video Transcoding for Compressed MPEG-2 Bitstream," Natinal Central University, Chung-Li, Taiwan	
	DU	MITCHELL et al., "MPEG Video Compression Standard: 15.2 Encoder and Decoder Buffering," Chapman and Hall Digital Multimedia Standards Series, pp. 340-356, XP002115299, ISBN: 0-412-08771-5, Chapman and Hall, New York	
	DV	WHYBRAY, M.W. et al., "Video Coding - Techniques, Standards and Applications," BT Technol J. Vol. 14, No. 4, 4 October 1997, pp. 86-100, XP000722036	
	DW	"SHARP Product Information: VTST-Series NTSC/PAL Electronic Television Tuners," RF Components Group, Sharp Microelectronics of the America, 1997	
	DX	EDWARDS, Larry M., "Satisfying Your Need for Net Speed," San Diego Metropolitan, September 1999, <<www.sandiegometro.com/1999/sept/speed.html>>, retrieved on 07/19/2001	
	DY	OZ, Ran et al., "Unified Headend Technical Management of Digital Services," BigBend Networks, Inc.	
	DZ	MURIEL, Chris, "What Is Digital Satellite Television?," What is Digital Television Rev. 3.0, April 21, 1999, SatCure, Sandbach, England, <<http://www.netcentral.co.uk/satcure/digifaq.htm>>, access on 04/20/2001	
	EA	"CONEXANT Products & Tech Info: Product Briefs: CX24108," 2000-2002 Conexant Systems, Inc. access on 04/20/2001	
	EB	"CONEXANT Products & Tech Info: Product Briefs: CX22702," 2000-2002 Conexant Systems, Inc. access on 04/20/2001	
/AH/	EC	"TDC: Components for Modems & Digital Infotainment: Direct Broadcast Satellite Chipset," 2001 Telecom Deslgn Communications Ltd., U.K., <<http://www.tdc.co.uk/modmulti/settop/index.htm>>, access on 04/20/2001	

Examiner Signature	/Son Huynh/ (08/15/2007)	Date Considered	08/15/2007
--------------------	--------------------------	-----------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



PTO/SB/08B (08-03)

Approved for use through 07/31/2008. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	10/004,770
Filing Date	12/04/2001
First Named Inventor	Indra LAKSONO
Art Unit	2611
Examiner Name	GRANT, Christopher C.
Attorney Docket Number	1459.0100320 (1459-VIXS032)

Sheet 8 of 8

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials <sup>1</sup>	Cite No. <sup>2</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
/AH/	ED	"White Paper: Super G: Maximizing Wireless Performance," March 2004, Altheros Communications, Inc., pp. 1-20, Document No. 991-00006-001, Sunnyvale, California	
	EE	KWOK, Y.K. et al., "Efficient Multiple Access Control Using a Channel-Adaptive Protocol for a Wireless ATM-Based Multimedia Services Network," March 29, 2000, Computer Communications 24(2001) 970-983, University of Hong Kong, Hong Kong, PRC	
	EF	LIANG, Ying-Chang et al., "Joint Downlink Beamforming, Power Control, and Data Rate Allocation for DS-CDMA Mobile Radio with Multimedia Services," 2000 IEEE, pp. 1455-1457, Cener for Wireless Communication, Singapore	
	EG	RAZAVI, Behzad, "Challenges in Portable RF Transceiver Design," September 1996, 1996 IEEE, pp. 12-25, Circuits & Devices	
	EH	MANNION, Patrick, "IceFyre Device Cools 802.11a Power Consumption," September 24, 2001, Planet Analog, National Semiconductor, << <a href="http://www.planetanalog.com/story/OEG20010924S0079">http://www.planetanalog.com/story/OEG20010924S0079</a> >>, access on 11/05/2001	
	EI	"ICE Fyre Semiconductor: IceFyre 5-GHz OFDM Modem Solution," September 2001, pp. 1-6, ICEFYRE: Rethink Wireless, IceFyre Semiconductor, Inc.	
	EJ	POZAR, David M., "Theory and Design of Ferrimagnetic Components," 1990, pp. 529, Microwave Engineering, Addison-Wesley Publishing Company, Inc.	
✓	EK	"Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications: High-Speed Physical Layer in the 5 GHz Band," 1999 IEEE, pp. 1-83, Supplement to IEEE Standard for Information Technology, IEEE Std 802.11a-1999, LAN/MAN Standards Committee	
/AH/	EL	CICIORA, Walter S., "Cable Television in the United States: An Overview," May 25, 1995, pp. 1-90, Cable Television Laboratories, Inc., Louisville, Colorado	

Examiner Signature	/Son Huynh/ (08/15/2007)	Date Considered	08/15/2007
-----------------------	--------------------------	--------------------	------------

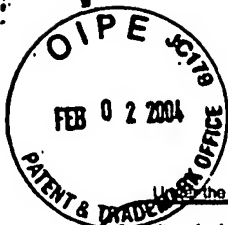
<sup>1</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>2</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.





PTO/SB/088 (04-03)  
Approved for use through 04/30/2003. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE  
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

### Complete If Known

Application Number 10/004,770

Filing Date December 4, 2001

First Named Inventor Indra Laksono

Art Unit 2643

Examiner Name

Attorney Docket Number 1459-0100320

RECEIVED

FEB 04 2004

Technology Center 2600

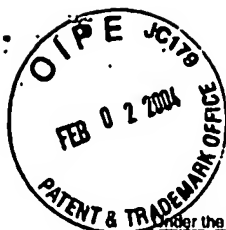
NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
/AH/	AA	Pedro Assuncao and Mohammad Ghanbari, "Rate Reduction Techniques for MPEG-2 Video Bit Streams," SPIE Vol. 2952, April 1996, 10 pp.	
	BB	Jae-Young Pyun, "QoS Provisioning for Video Streaming over IEEE 802.11 Wireless LAN," (abridged) IEEE Conference in Consumer Electronics, 6/16/2003, 3 pp. [online] Retrieved from the Internet 7/8/2003 at URL	
	CC	Krisda Lengwehasatit and Antonio Ortega, "Computationally Scalable Partial Distance Based Fast Search Motion Estimation," Univ. of Southern California, 4 pp., (date unknown)	
	DD	Manoj Aggarwal and Ajai Narayan, "Efficient Huffman Decoding," 2000 IEEE, 0-7803-6297-7, pp. 938-939.	
	EE	Peng Yin et al., "Video Transcoding by Reducing Spatial Resolution," Princeton University, Princeton, NJ, 4 pp., 2000	
	FF	Zhigang Fan and Ricardo de Queiroz, "Maximum Likelihood Estimation of JPEG Quantization Table in the Identification of Bitmap Compression History," Xerox Corporation, Webster, NY, 4 pp. (date unknown)	
	GG	Luis Ducla Soares et al., "Influence of Encoder Parameters on the Decoded Video Quality for MPEG-4 Over W-CDMA Mobile Networks," NTT DoCoMo, Inc. technical paper, 4 pp. (date unknown)	
	HH	Thomas Wiegand et al., "Long-Term Memory Motion-Compensated Prediction for Robust Video Transmission," in Proc. ICIP2000, 4 pp.	
	II	P. Greg Sherwood et al., "Efficient Image and Channel Coding for Wireless Packet Networks," Univ. of CA, San Diego, CA, 4 pp. (date unknown)	
/AH/	JJ	Donghoon Yu et al., "Fast Motion Estimation for Shape Coding in MPEG-4," 2003 IEEE Transactions on Circuits and Systems for Video Technology, Vol. 13, No. 4, April 2003, pp. 358-363	

Examiner Signature	/Son Huynh/ (08/15/2007)	Date Considered	08/15/2007
--------------------	--------------------------	-----------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



PTO/SB/088 (04-03)  
Approved for use through 04/30/2003. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1448/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

### Complete if Known

Application Number 10/004,770

Filing Date December 4, 2001

First Named Inventor Indra Laksono

Art Unit 2643

Examiner Name

Attorney Docket Number 1459-0100320

RECEIVED

FEB 04 2004

Technology Center 2600

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
/AH/	KK	Shine M. Thomas, Rahul Kumar & Vasudha Bhat, "An Efficient Implementation of MPEG-2 (BC1) Layer 1 & Layer 2 Stereo Encoder on Pentium-III Platform", Sasken Communication Technologies Limited, Banalore, India, pp. 1-10.	
	LL		
	MM		
	NN		
	OO		
	PP		
	QQ		
	RR		
	SS		
	TT		

Examiner Signature	/Son Huynh/ (08/15/2007)	Date Considered	08/15/2007
--------------------	--------------------------	-----------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.